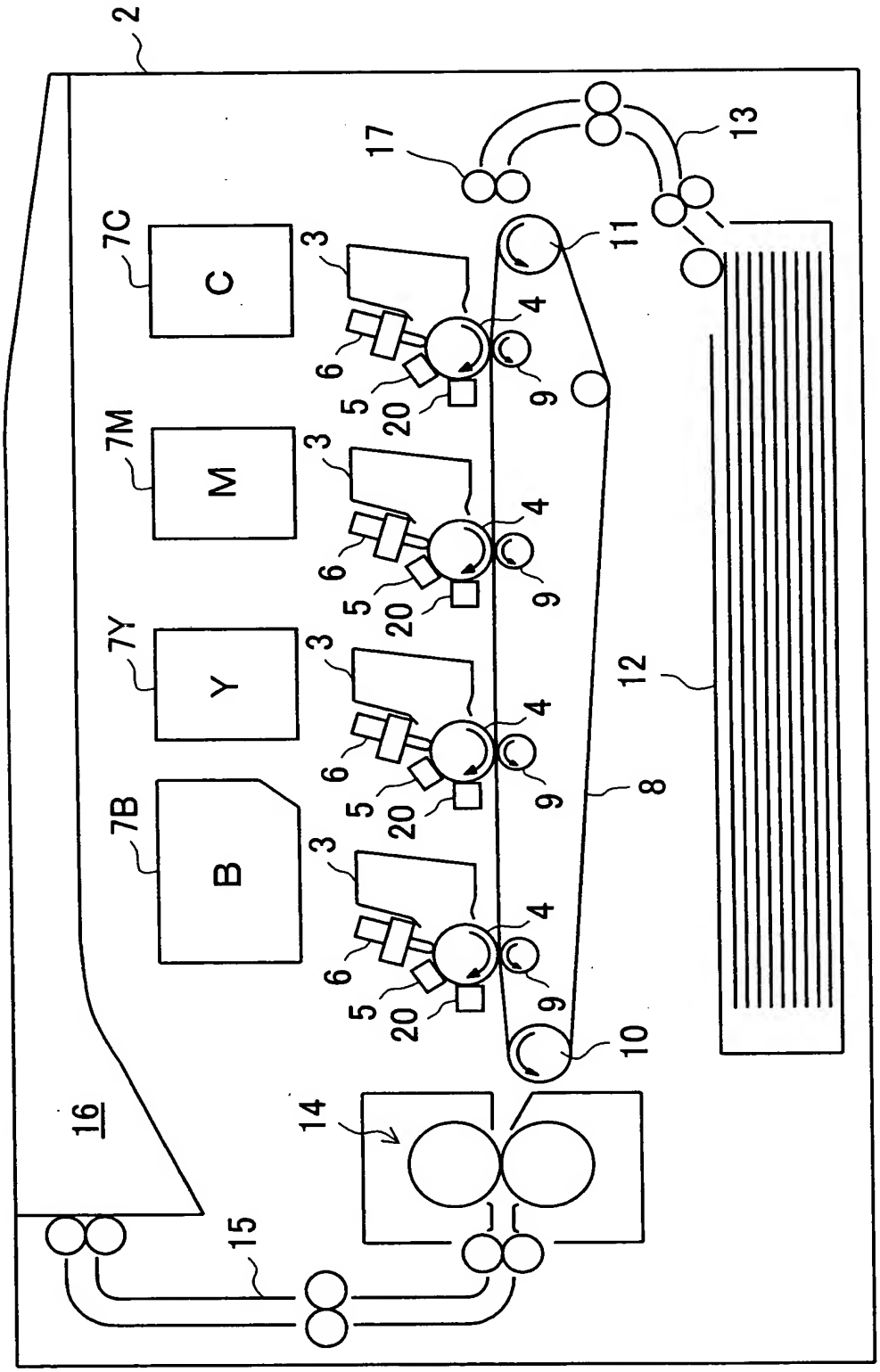


Fig.1

Fig.2

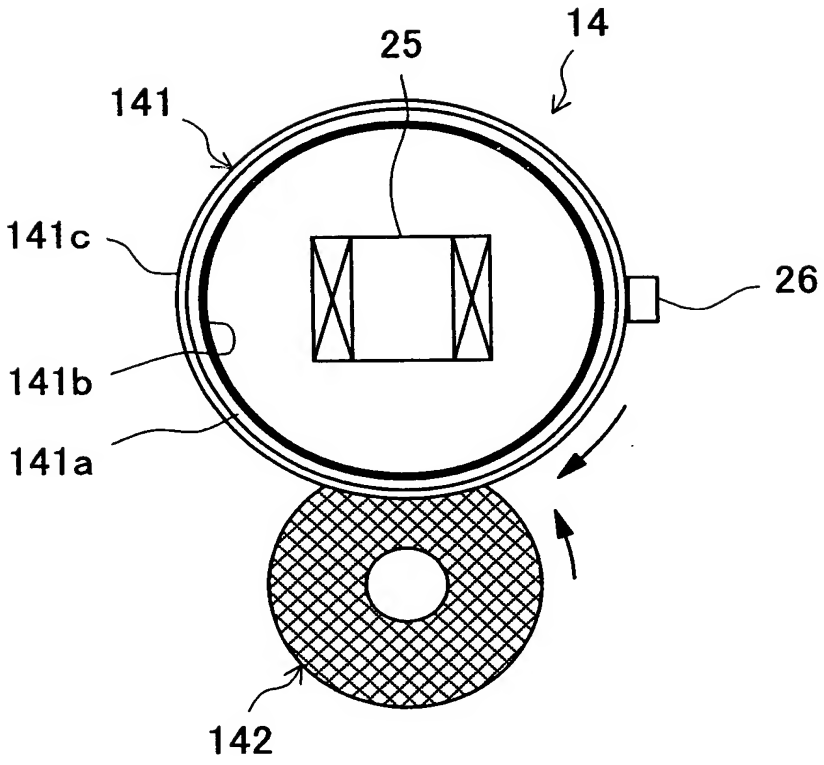


Fig.3

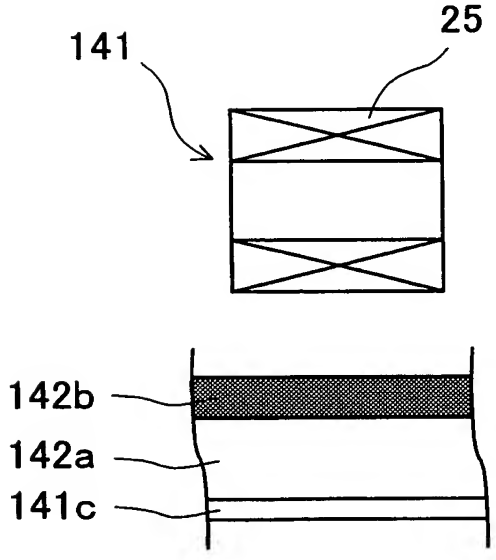


Fig.4

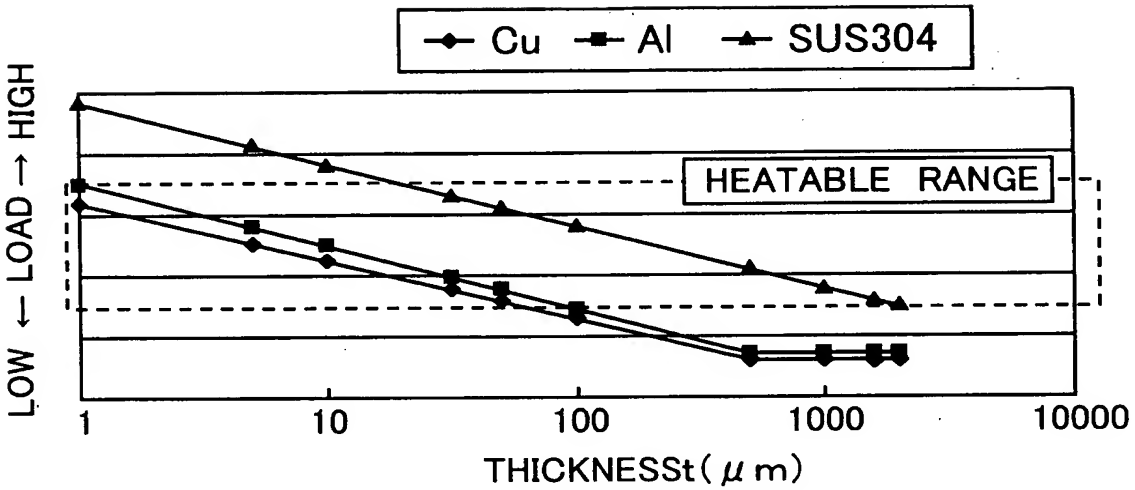

Cu
Al
SUS304
HEATABLE RANGE
LOW ← LOAD → HIGH
1
10
100
1000
10000
THICKNESSt(μm)

Fig.5

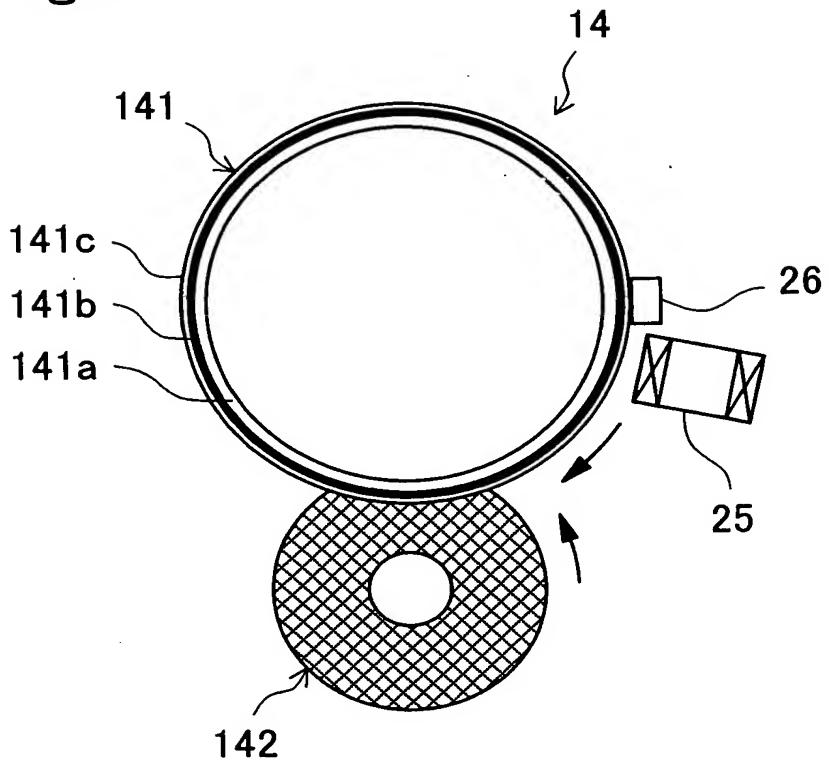

14
141
141c
141b
141a
26
25
142

Fig.6

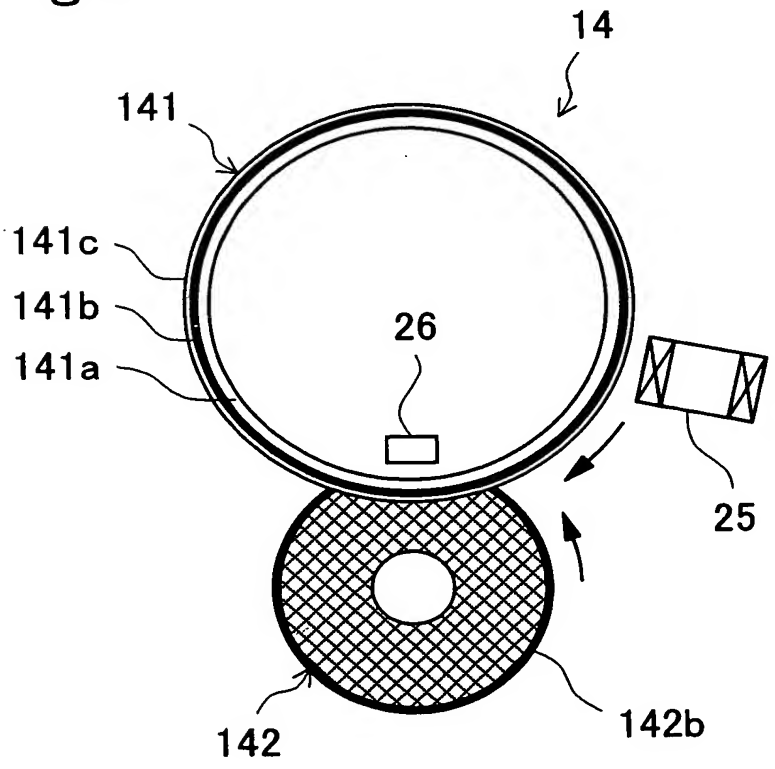

14
141
141c
141b
141a
26
25
142
142b

Fig.7

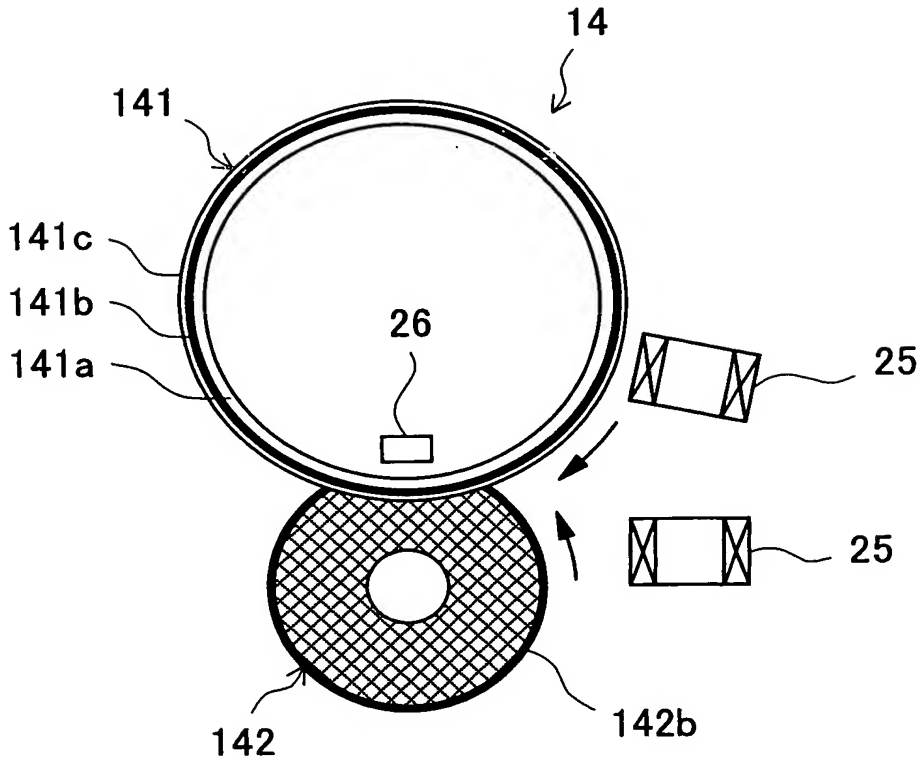

14
141
141c
141b
141a
26
25
25
142
142b

Fig.8

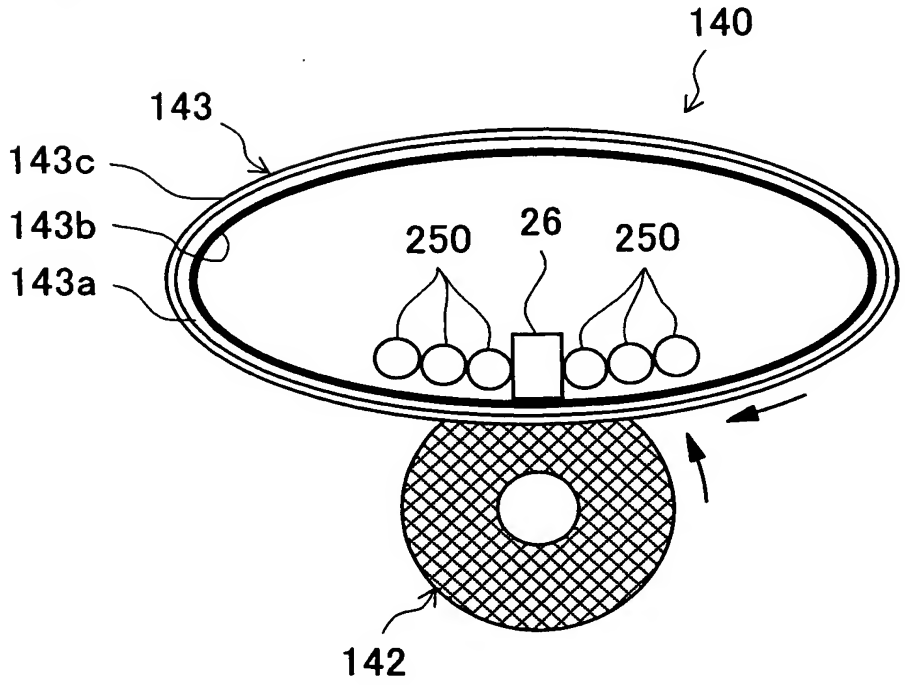

140
143
143c
143b
143a
250
26
250
142

Fig.9

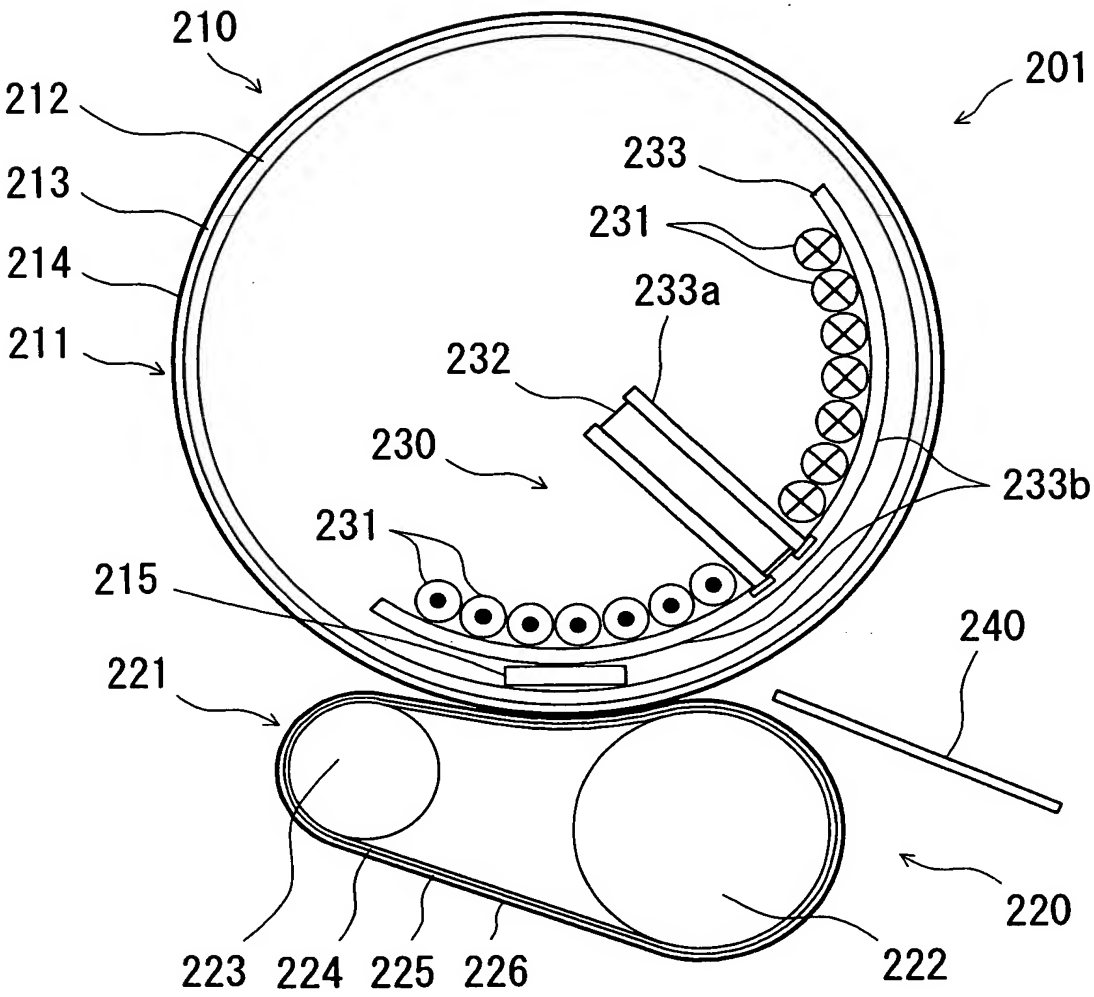

210
201
212
213
214
211
233
231
233a
232
230
233b
231
215
240
221
220
223
224
225
226
222

Fig.10

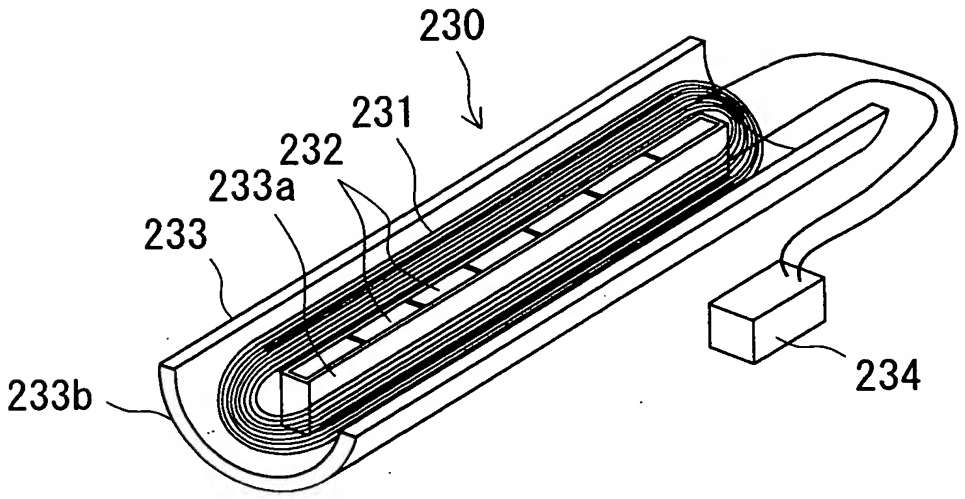


Fig.11

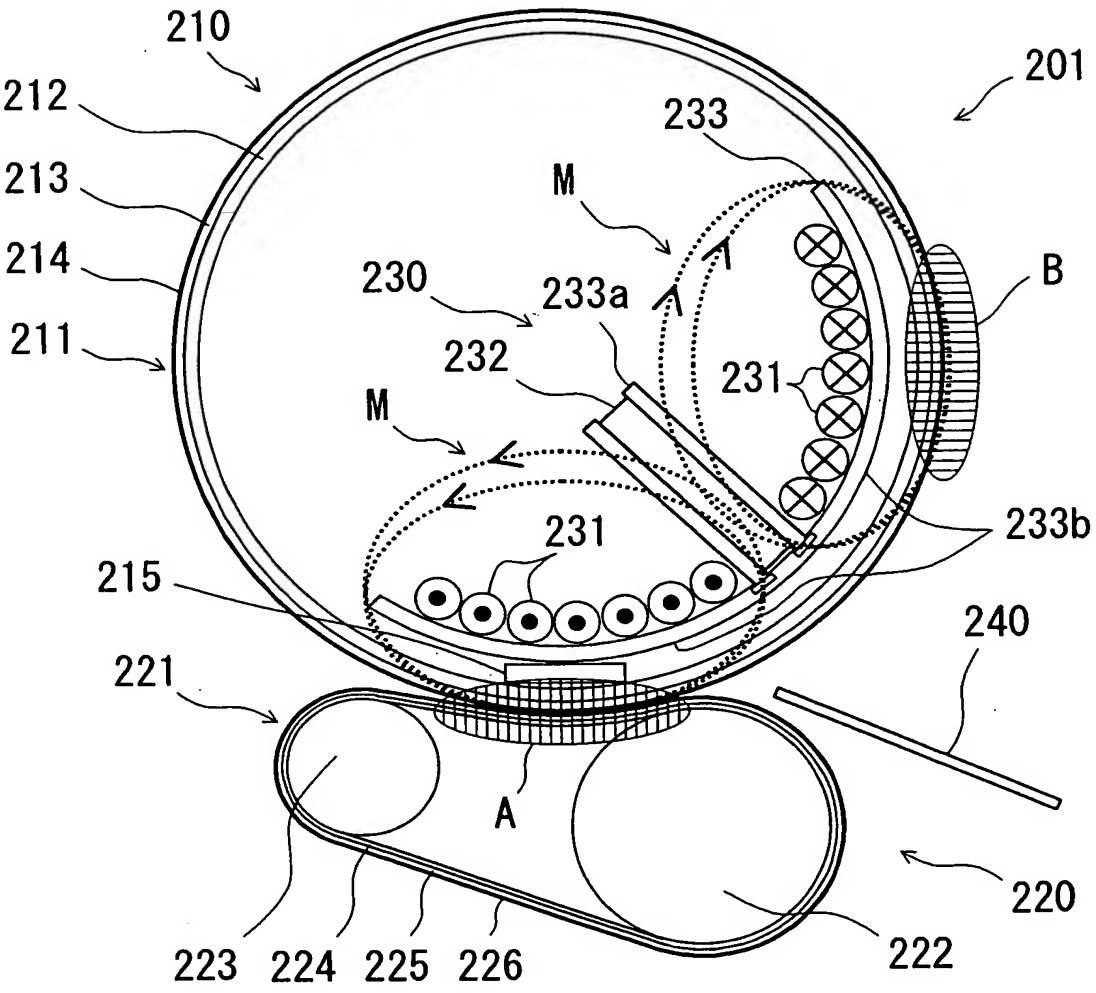

210
201
212
233
213
M
214
230
233a
B
211
232
231
M
231
233b
215
240
221
A
220
223
224
225
226
222

Fig. 12

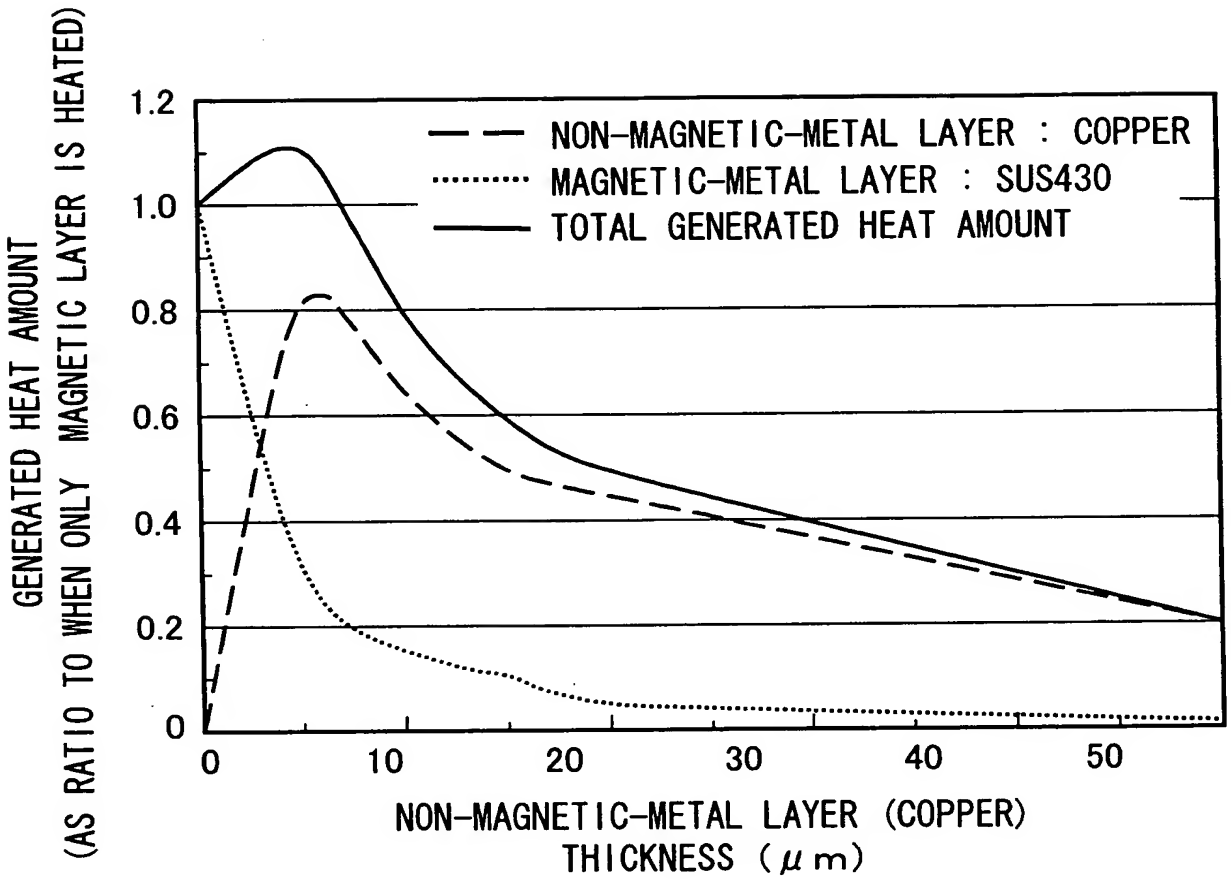

GENERATED HEAT AMOUNT
(AS RATIO TO WHEN ONLY MAGNETIC LAYER IS HEATED)
1.2
1.0
0.8
0.6
0.4
0.2
0
0
10
20
30
40
50
NON-MAGNETIC-METAL LAYER : COPPER
MAGNETIC-METAL LAYER : SUS430
TOTAL GENERATED HEAT AMOUNT
NON-MAGNETIC-METAL LAYER (COPPER)
THICKNESS (μm)

Fig. 13

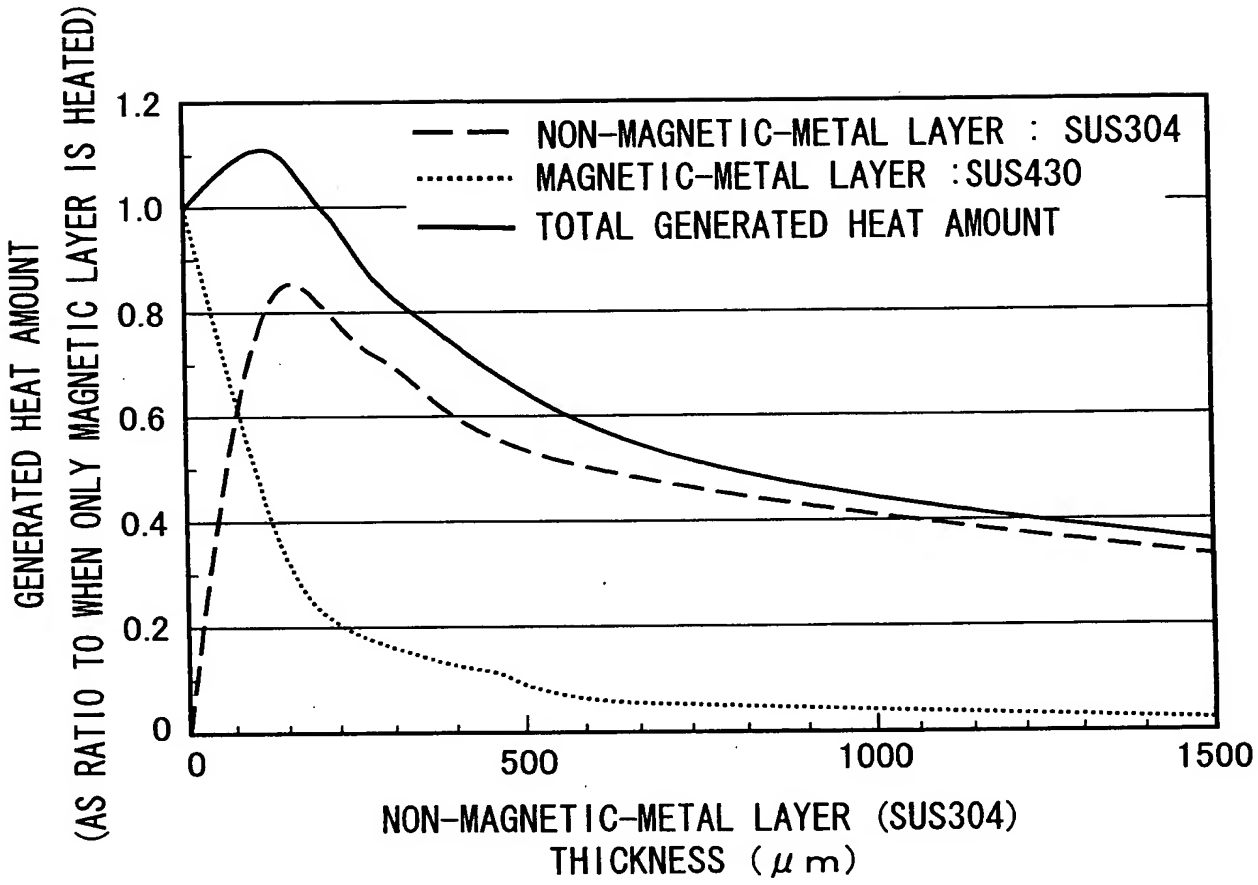

GENERATED HEAT AMOUNT
(AS RATIO TO WHEN ONLY MAGNETIC LAYER IS HEATED)
1.2
1.0
0.8
0.6
0.4
0.2
0
0
500
1000
1500
NON-MAGNETIC-METAL LAYER : SUS304
MAGNETIC-METAL LAYER :SUS430
TOTAL GENERATED HEAT AMOUNT
NON-MAGNETIC-METAL LAYER (SUS304)
THICKNESS (μm)

Fig. 14

NON-MAGNETIC-METAL LAYER CONDITIONS			GENERATED HEAT AMOUNT (AS RATIO TO WHEN ONLY MAGNETIC METAL LAYER IS HEATED)		
EDDY CURRENT LOAD R (Ω)	THICKNESS (μm)		NON-MAGNETIC LAYER COPPER or SUS304	MAGNETIC LAYER SUS430	TOTAL HEAT AMOUNT
	COPPER	SUS304			
—	0.0	0.0	0.00	1.00	1.00
8.04×10^{-3}	2.1	90	0.35	0.70	1.05
5.76×10^{-3}	2.9	125	0.55	0.55	1.10
3.34×10^{-3}	5.0	215	0.80	0.30	1.10
2.88×10^{-3}	6.0	250	0.80	0.30	1.10
2.44×10^{-3}	7.0	300	0.80	0.20	1.00
1.67×10^{-3}	10	431	0.65	0.15	0.80
1.11×10^{-3}	15	647	0.50	0.10	0.60
8.35×10^{-4}	20	862	0.45	0.05	0.50
3.34×10^{-4}	50	2155	0.20	0.01	0.21

Fig. 15

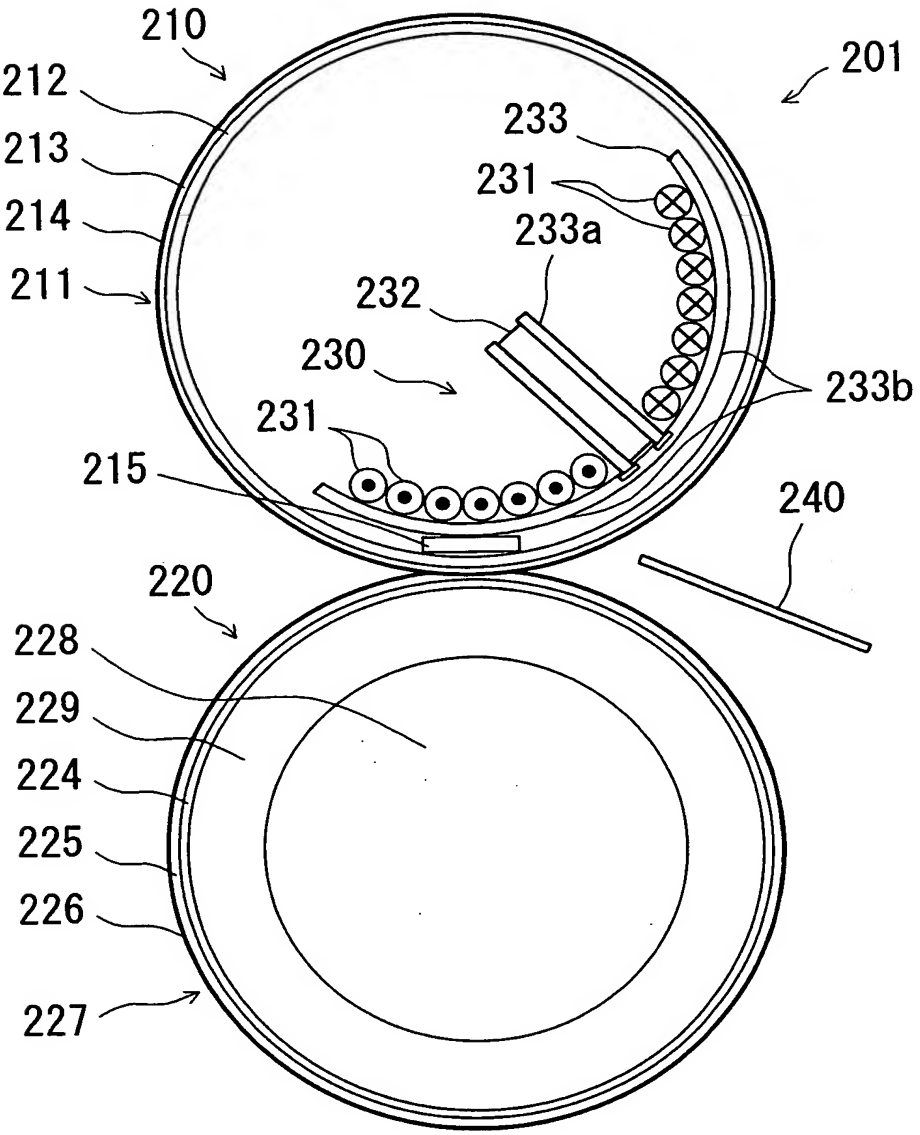

210
201
212
213
233
231
214
233a
211
232
230
233b
231
215
240
220
228
229
224
225
226
227

Fig. 16

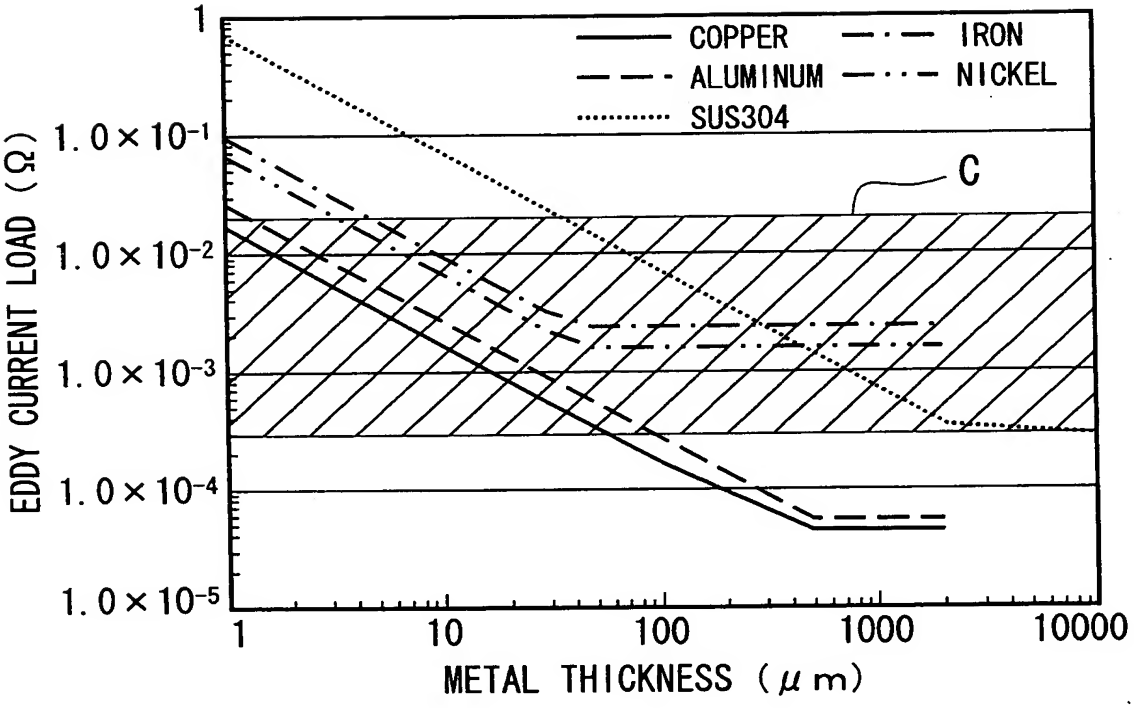

COPPER
IRON
ALUMINUM
NICKEL
SUS304
C
EDDY CURRENT LOAD (Ω)
1
1.0×10⁻¹
1.0×10⁻²
1.0×10⁻³
1.0×10⁻⁴
1.0×10⁻⁵
1
10
100
1000
10000
METAL THICKNESS (μm)

Fig. 17

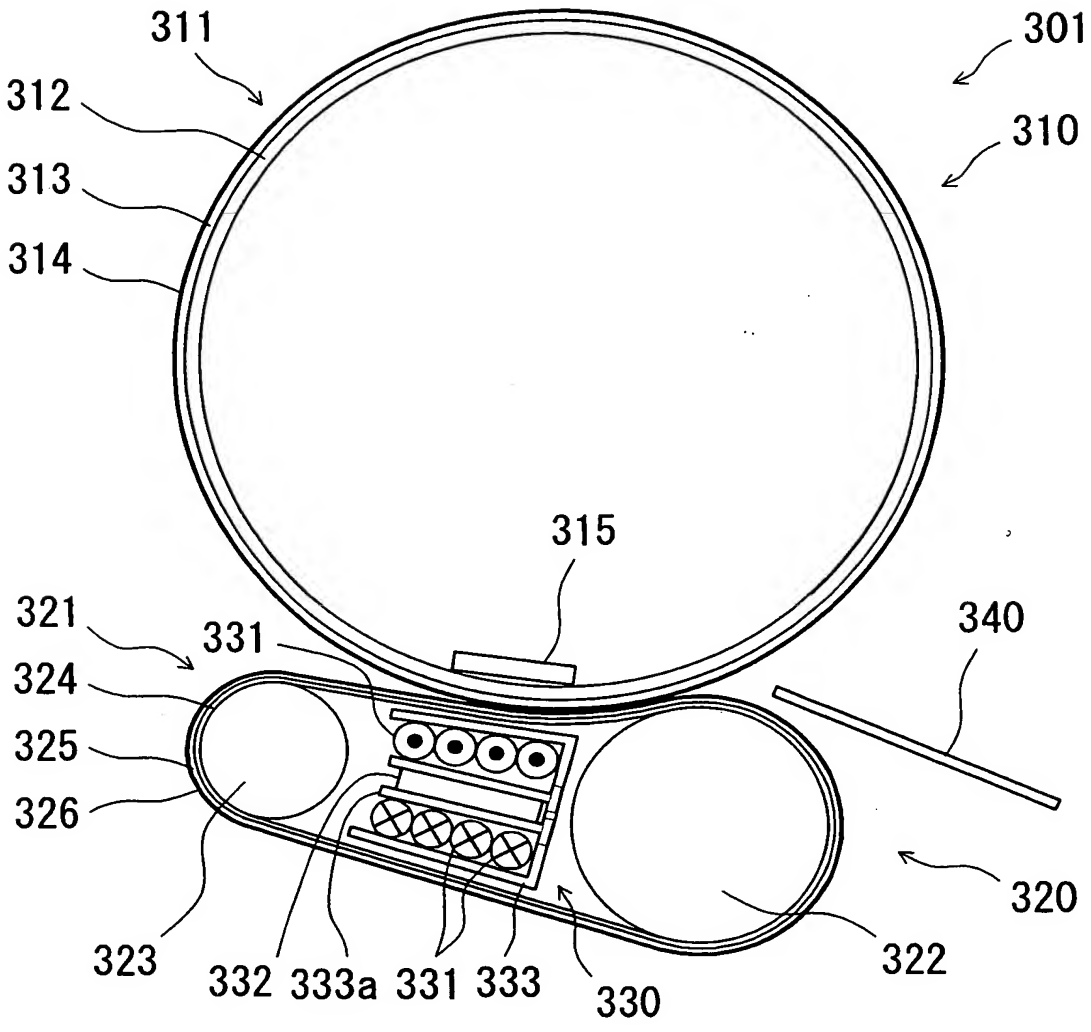

311
301
312
310
313
314
315
321
331
340
324
325
326
320
323
332
333a
331
333
330
322

Fig. 18

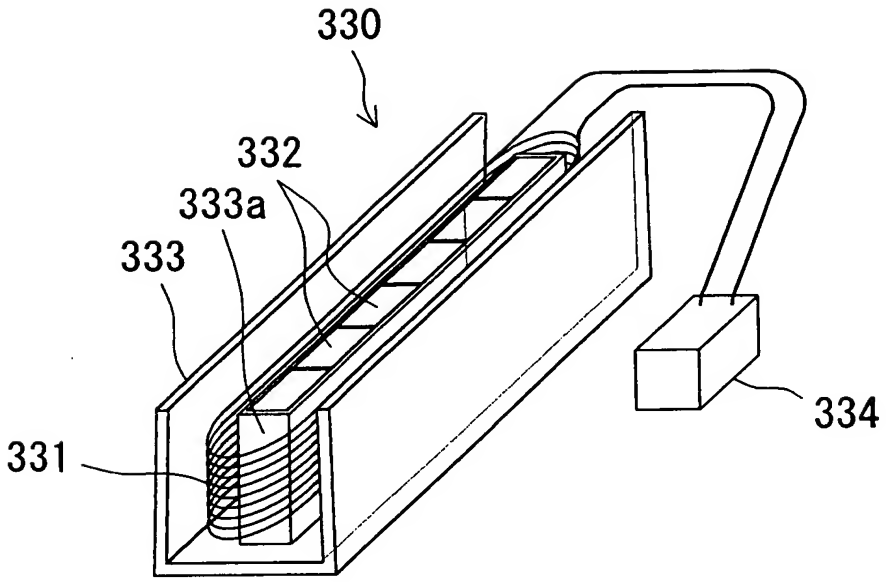


Fig. 19

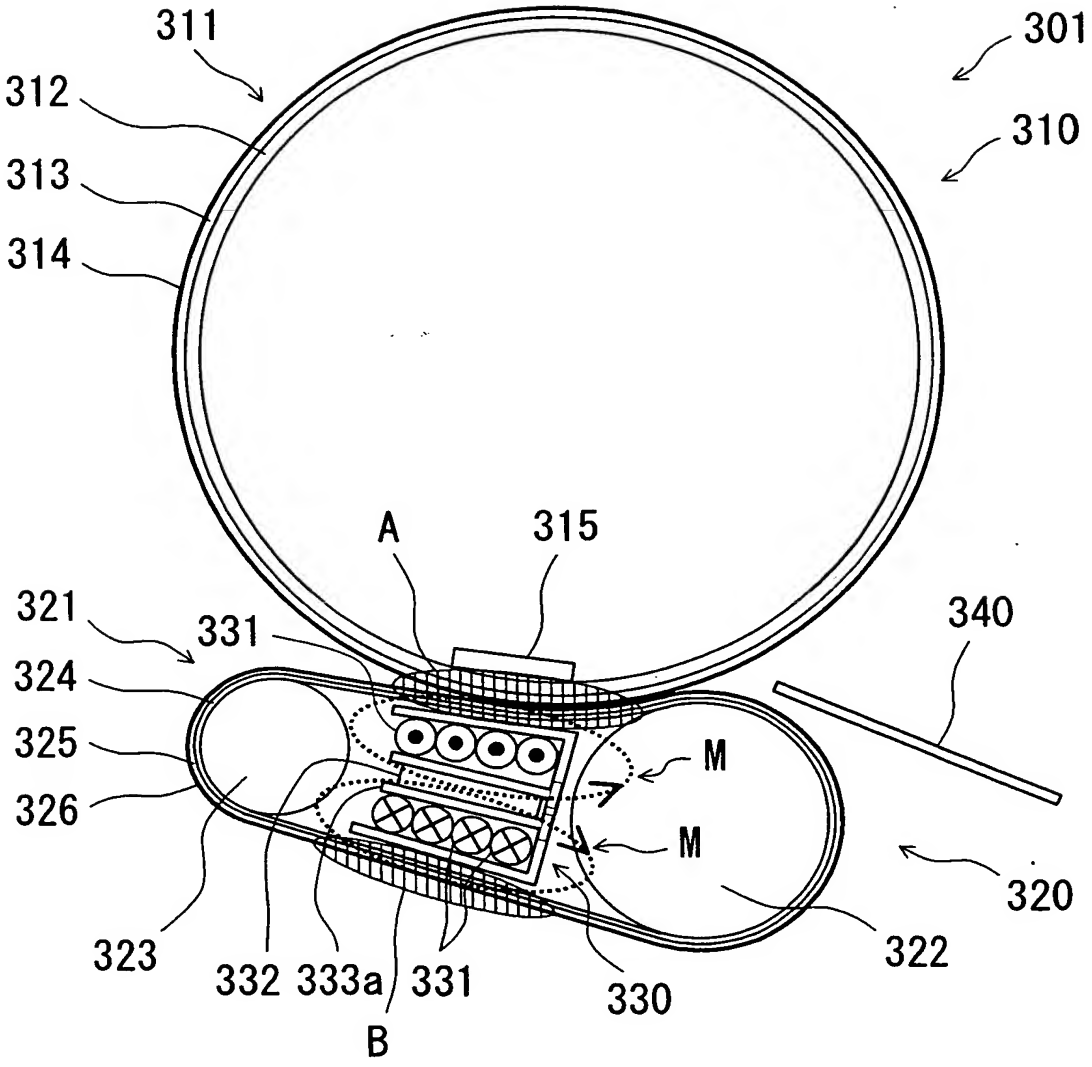

311
301
312
310
313
314
A
315
321
331
340
324
325
M
326
M
320
323
322
332
333a
331
330
B

Fig. 20

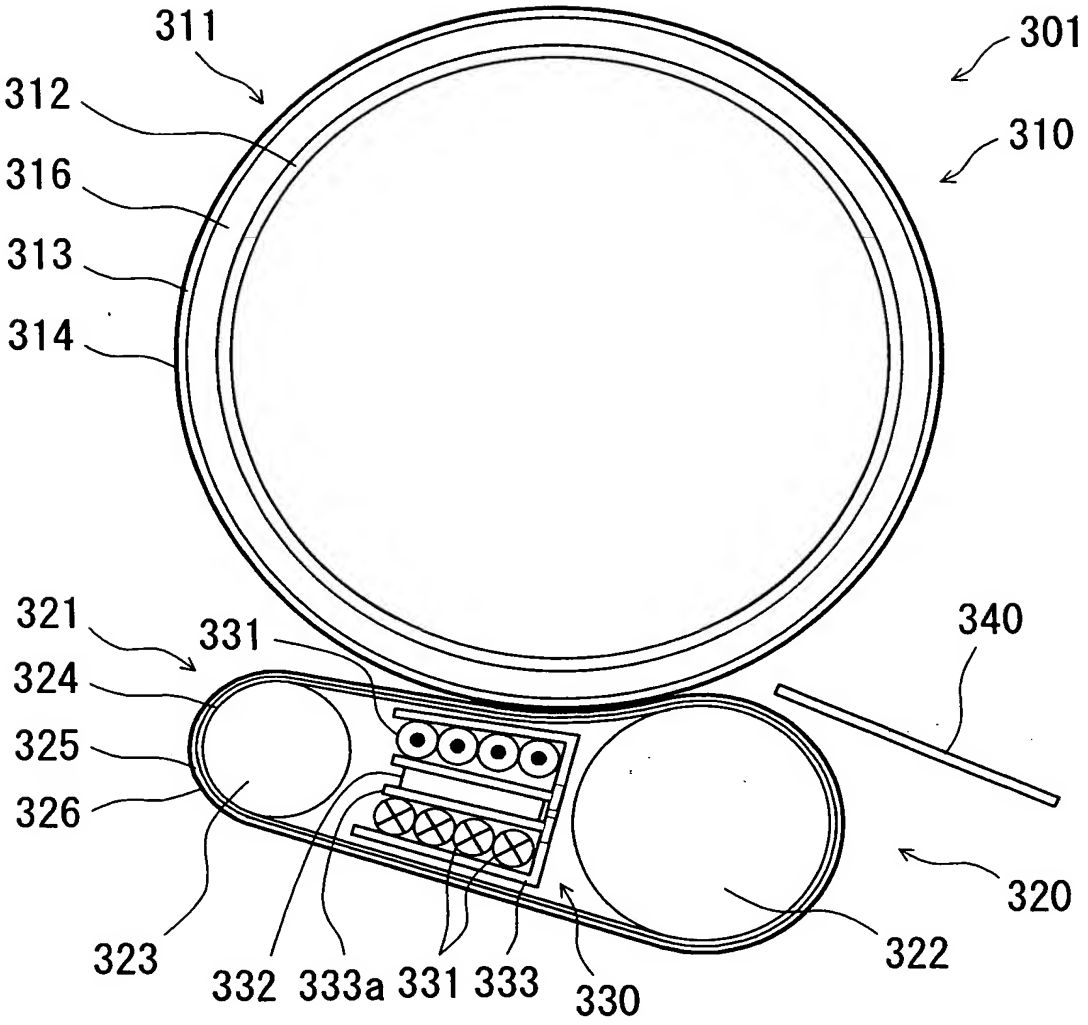

311
301
312
310
316
313
314
321
331
340
324
325
326
320
323
322
332
333a
331
333
330

Fig. 21

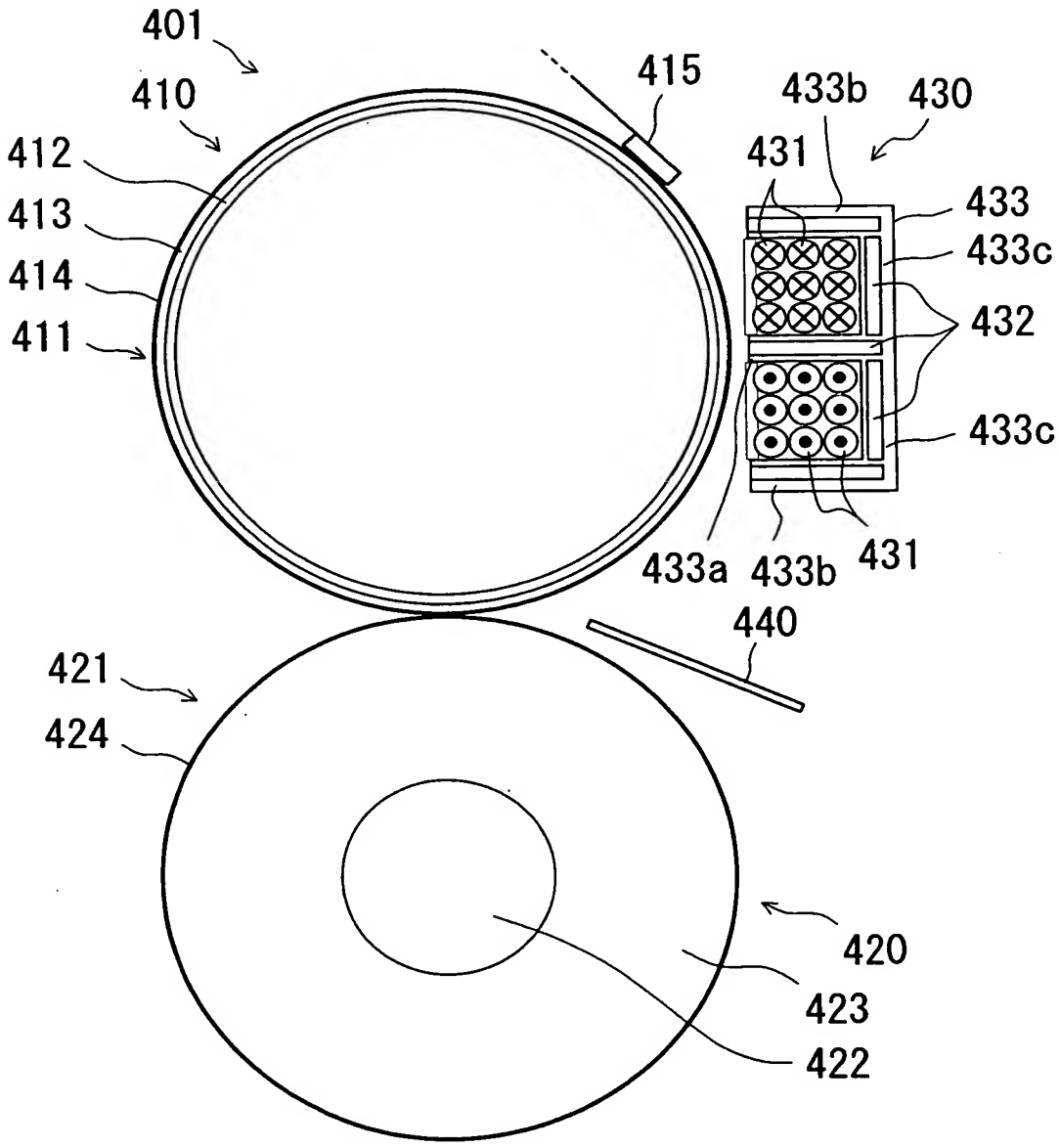

401
410
412
413
414
411
415
433b
430
431
433
433c
432
433c
433a
433b
431
440
421
424
420
423
422

Fig. 22

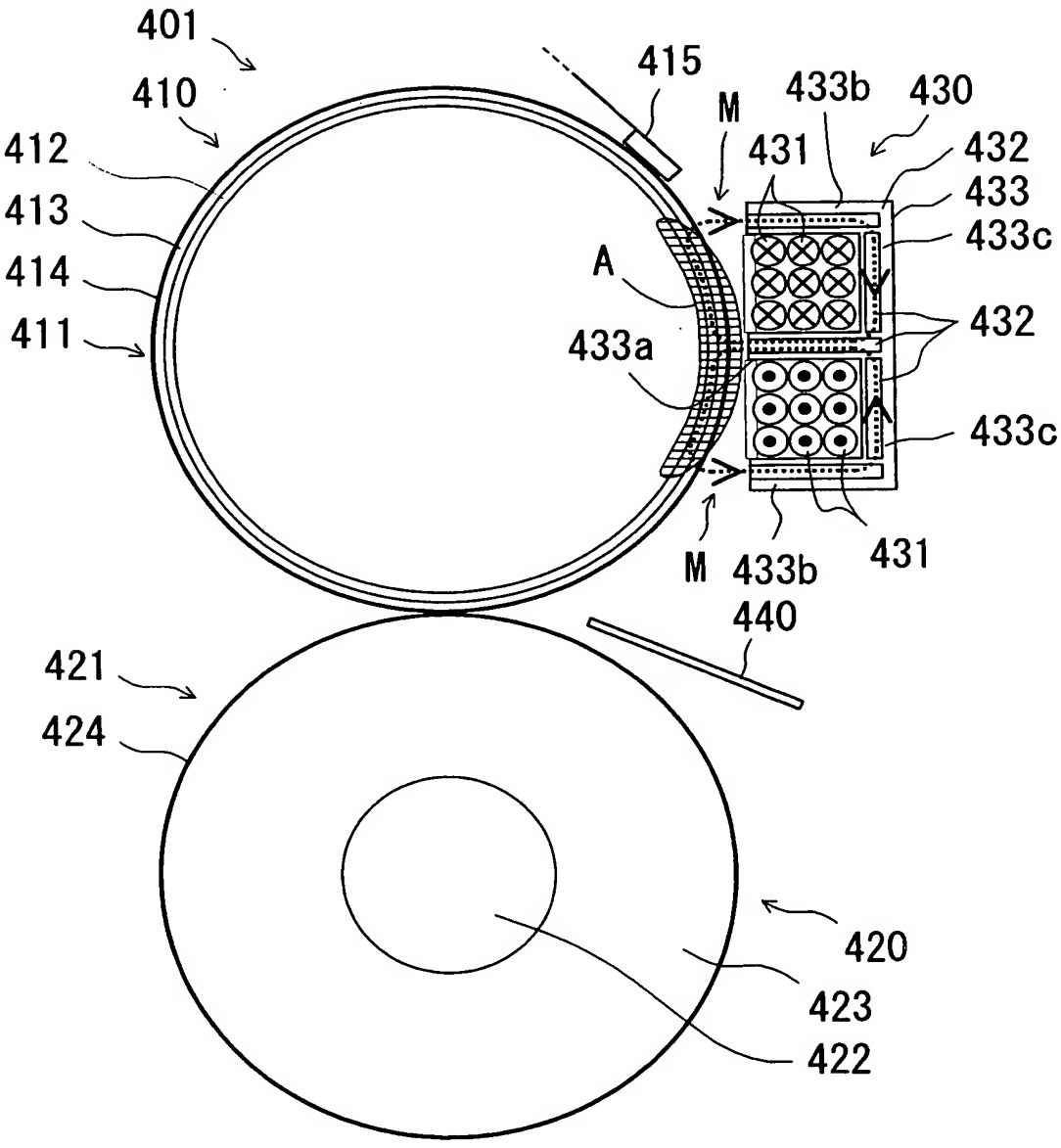

401
410
412
413
414
411
415
M
433b
430
431
432
433
433c
A
433a
432
433c
M
433b
431
440
421
424
420
423
422

Fig. 23

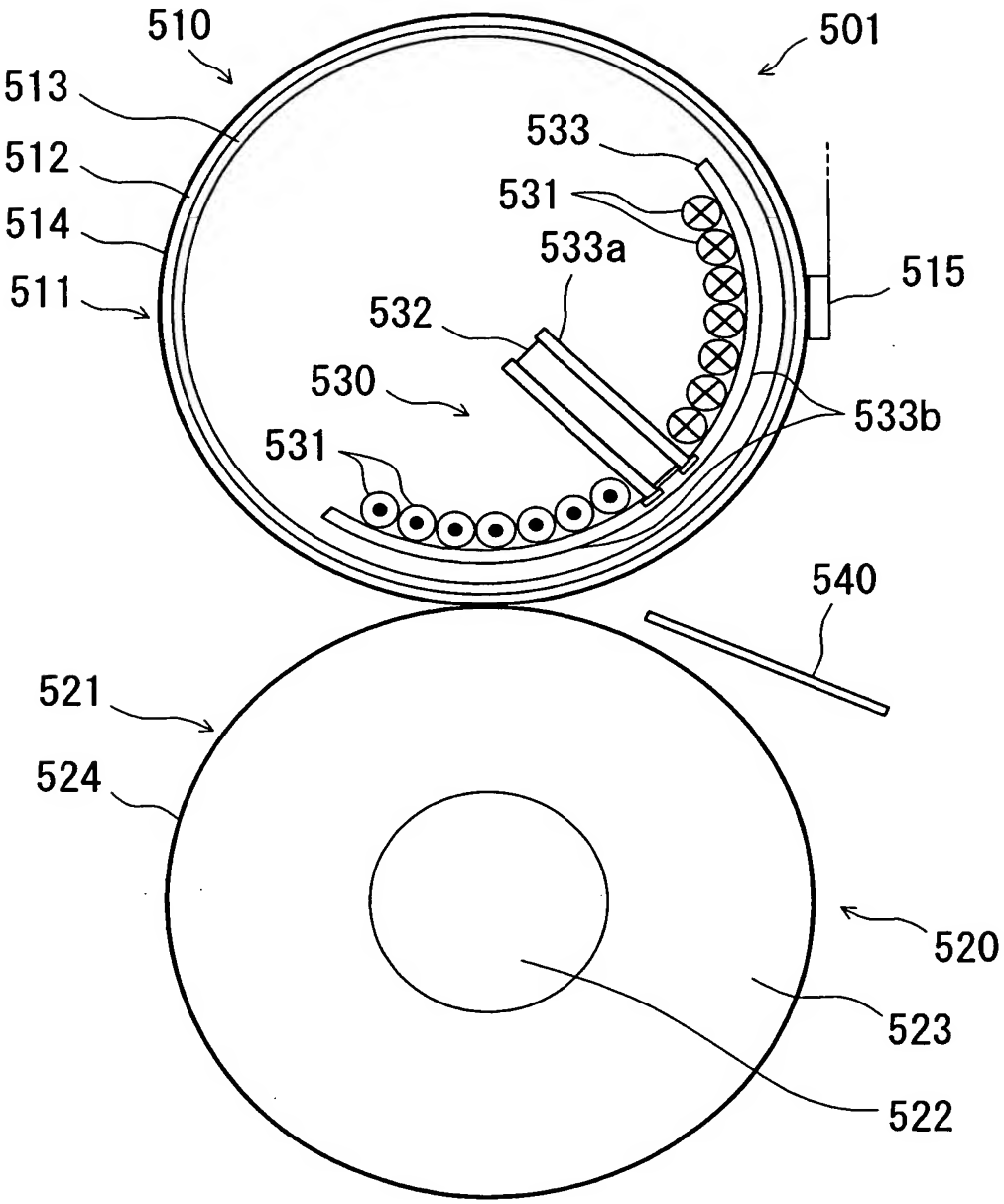
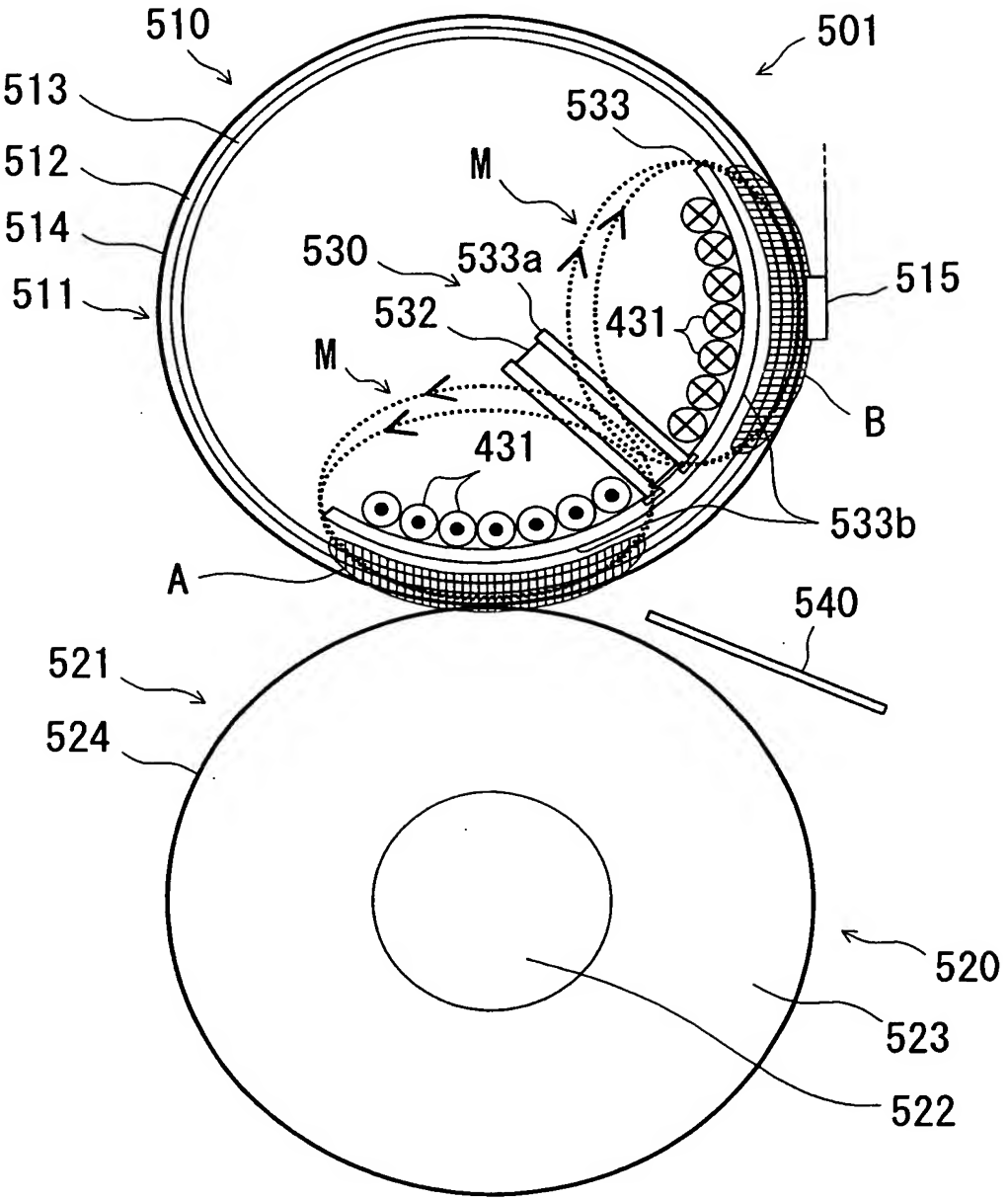

510
501
513
512
514
511
533
531
533a
515
532
530
533b
531
540
521
524
520
523
522

Fig. 24


510
501
513
533
512
M
514
530
533a
515
511
532
431
M
B
431
533b
A
540
521
524
520
523
522